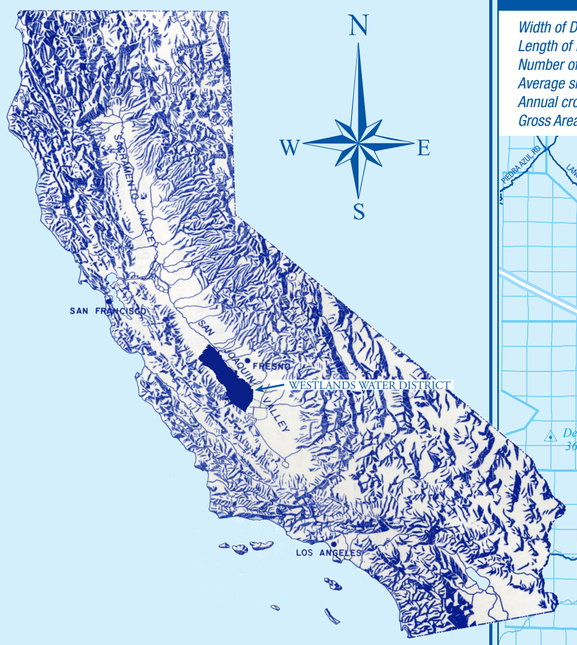


General Information

Width of District - 15 miles
Length of District - 74 miles
Number of farms - 700
Average size of farms - 875 acres
Annual crop production - $1 billion +
Gross Area - 614,000 acres

Westlands By The Numbers

PROJECT FACILITIES

San Luis Canal / California Aqueduct

Length in District	68.67 miles
Maximum Top Width	257 feet
Maximum Bottom Width	110 feet
Maximum Depth	36 feet
Capacity at:	
- Panoche Creek	13,000 cfs
- Kettleman City	8,100 cfs

Coalinga Canal

Total Length	12.8 miles
Length of Canal	11.5 miles
Maximum Top Width	60 feet
Maximum Bottom Width	12 feet
Maximum Depth	16 feet
Capacity:	1,100 cfs

DISTRICT INTERNAL DISTRIBUTION SYSTEM

Total Pipeline Length	1,034 miles
Maximum Pipeline Diameter	96 inches
Minimum Pipeline Diameter	10 inches
Ag Deliveries	3,300+ meters
Non-Ag Deliveries	244 meters
Number of Laterals:	
- San Luis Aqueduct	38 Left , 24 Right laterals
- Coalinga Canal	6 laterals

Legend

CITIES
ALL CAPS - Incorporated City
Upper Lower Case - Unincorporated

- *Over 100,000*
- *25,000 - 100,000*
- *10,000 - 25,000*
- *5,000 - 10,000*
- *Under 5,000*

- *Airport (with facilities)*
- *Airport (with emergency facilities)*
- *Mountain Peak (with elevation)*
- *Township / Range and Sections*

WESTLANDS WATER DISTRICT

COMMITTED TO PROVIDING FARMERS WITH A RELIABLE WATER SUPPLY FOR MORE THAN 50 YEARS

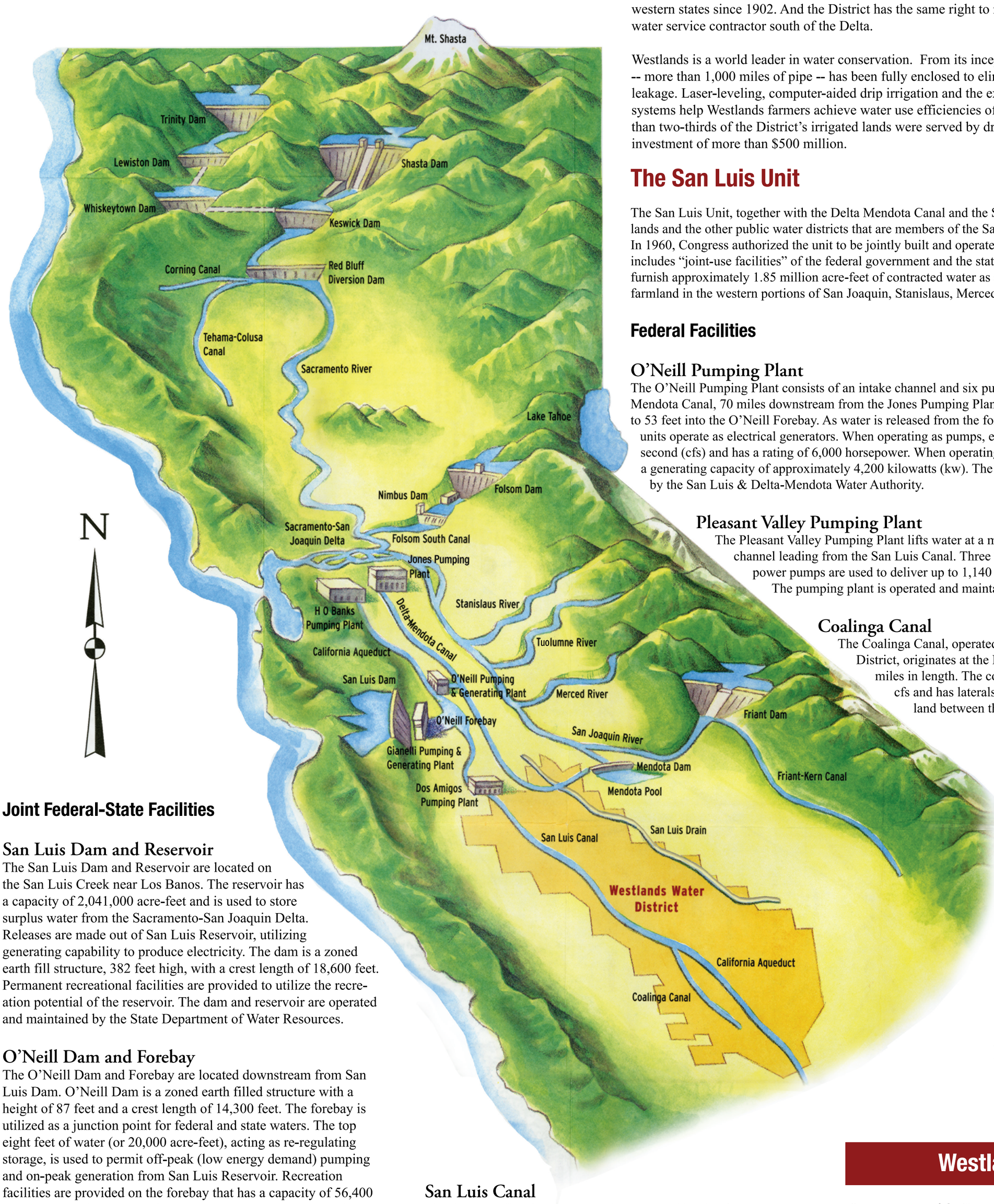
3130 N. Fresno Street, P.O. Box 6056, Fresno, CA 93703-6056 (559) 224-1523 www.westlandswater.org

Westlands Water District

As the largest agricultural water district in the United States, a major employer and a key component in California's economy, the Westlands Water District has a vital interest in working with other public agencies and with leaders in the environmental, scientific and business communities to help California meet its water needs for the future.

Originally formed in 1952, the District today encompasses more than 600,000 acres of farmland in western Fresno and Kings counties. To deliver water to the Westside, the federal government signed a joint-venture agreement with the State of California for federal construction of the San Luis Unit of the Central Valley Project (CVP) in 1961. Groundbreaking followed the next year, and the San Luis Canal was completed in 1968.

The water that the CVP delivers to Westlands is pumped from Northern California, through the Sacramento-San Joaquin Delta, and then through the Delta-Mendota Canal to San Luis Reservoir. The reservoir is operated jointly with the State Water Project and the water is shared with other public water agencies serving more than 25 million people in Southern California and the Bay Area.



Joint Federal-State Facilities

San Luis Dam and Reservoir

The San Luis Dam and Reservoir are located on the San Luis Creek near Los Banos. The reservoir has a capacity of 2,041,000 acre-feet and is used to store surplus water from the Sacramento-San Joaquin Delta. Releases are made out of San Luis Reservoir, utilizing generating capability to produce electricity. The dam is a zoned earth fill structure, 382 feet high, with a crest length of 18,600 feet. Permanent recreational facilities are provided to utilize the recreation potential of the reservoir. The dam and reservoir are operated and maintained by the State Department of Water Resources.

O'Neill Dam and Forebay

The O'Neill Dam and Forebay are located downstream from San Luis Dam. O'Neill Dam is a zoned earth filled structure with a height of 87 feet and a crest length of 14,300 feet. The forebay is utilized as a junction point for federal and state waters. The top eight feet of water (or 20,000 acre-feet), acting as re-regulating storage, is used to permit off-peak (low energy demand) pumping and on-peak generation from San Luis Reservoir. Recreation facilities are provided on the forebay that has a capacity of 56,400 acre-feet. The dam and forebay are operated and maintained by the State Department of Water Resources.

Gianelli Pumping-Generating Plant

The Gianelli Pumping-Generating Plant, located at the base of the San Luis Dam, lifts water by pump-turbines from the O'Neill Forebay into San Luis Reservoir. During the irrigation season, water is released from San Luis Reservoir back through the pump-turbines to the forebay and energy is reclaimed. Each of the eight pumping-generating units has a motor capacity of 63,000 horsepower and a generator capacity of 53,000 kw. When pumping, each unit is capable of lifting 1,375 cfs of water 290 feet. When generating, each unit passes 1,640 cfs from the same elevation.

San Luis Canal

The San Luis Canal, operated and maintained by the Department of Water Resources, is 102 miles long with a capacity ranging from 13,100 cfs at O'Neill Forebay to 8,100 cfs at Kettleman City. The concrete-lined canal originates at the San Luis Reservoir and terminates near Kettleman City. Access sites for public fishing are provided.

Dos Amigos Pumping Plant

The Dos Amigos Pumping Plant is a re-lift plant located approximately 17 miles south of the forebay in the San Luis Canal. The plant contains six pumps, each with a 2,200 cfs capacity and a vertical lift of 125 feet. The plant is operated and maintained by the Department of Water Resources.

Westlands farmers are the stewards of some of the most productive agricultural lands in the world. The food and fiber grown here serves markets all over the globe. Before the District began receiving CVP water, however, farmers on the west side of the San Joaquin Valley relied on groundwater pumping, which led to severe overdrafts, widespread land subsidence and other environmental damage. Ownership of nearly half the District's lands in those early days was concentrated in large holdings of 2,000 acres or more. And farmers primarily grew cereal grain crops such as wheat and barley.

Today, Westlands farmers produce more than 60 high quality commercial food and fiber crops for the fresh, dry, canned and frozen food markets. More than 60 percent of the District's lands are producing fruits and vegetables as well as permanent crops such as almonds, pistachios and grapes. CVP deliveries have helped to relieve over-reliance on groundwater, and land ownership is divided among more than 700 families whose farms average 875 acres in size.

Westlands farmers on average produce approximately $1 billion worth of food and fiber every year, generating approximately $3.5 billion in farm-related economic activity for the communities of Fresno and Kings counties. That's nearly as much every year as the original cost of CVP construction. Westlands pays the costs of water delivery, just like every other public water agency served by the CVP as well as the millions of other water users that have been served by federal reclamation projects throughout the 17 western states since 1902. And the District has the same right to receive water as every other federal water service contractor south of the Delta.

Westlands is a world leader in water conservation. From its inception, the District's distribution system -- more than 1,000 miles of pipe -- has been fully enclosed to eliminate losses from evaporation and leakage. Laser-leveling, computer-aided drip irrigation and the extensive use of global positioning systems help Westlands farmers achieve water use efficiencies of 85 percent and more. By 2010, more than two-thirds of the District's irrigated lands were served by drip irrigation systems representing an investment of more than $500 million.

The San Luis Unit

The San Luis Unit, together with the Delta Mendota Canal and the San Felipe Unit of the CVP serves Westlands and the other public water districts that are members of the San Luis & Delta-Mendota Water Authority. In 1960, Congress authorized the unit to be jointly built and operated with the State of California. The unit includes "joint-use facilities" of the federal government and the state. The purpose of the federal portion is to furnish approximately 1.85 million acre-feet of contracted water as a supplemental irrigation supply to fertile farmland in the western portions of San Joaquin, Stanislaus, Merced, Fresno and Kings counties.

Federal Facilities

O'Neill Pumping Plant

The O'Neill Pumping Plant consists of an intake channel and six pumping-generating units off the Delta-Mendota Canal, 70 miles downstream from the Jones Pumping Plant. The units vertically lift water from 45 to 53 feet into the O'Neill Forebay. As water is released from the forebay to the Delta-Mendota Canal, these units operate as electrical generators. When operating as pumps, each unit can discharge 700 cubic feet per second (cfs) and has a rating of 6,000 horsepower. When operating as turbines and generators, each unit has a generating capacity of approximately 4,200 kilowatts (kw). The pumping plant is operated and maitained by the San Luis & Delta-Mendota Water Authority.

Pleasant Valley Pumping Plant

The Pleasant Valley Pumping Plant lifts water at a maximum of 197 feet from the intake channel leading from the San Luis Canal. Three 7,000, three 3,500 and three 1,250 horsepower pumps are used to deliver up to 1,140 cfs into the Coalinga Canal. The pumping plant is operated and maintained by Westlands Water District.

Coalinga Canal

The Coalinga Canal, operated and maintained by Westlands Water District, originates at the Pleasant Valley Pumping Plant and runs 12 miles in length. The concrete-lined canal has a capacity of 1,110 cfs and has laterals that serve approximately two-thirds of the land between the canal and the San Luis Canal.

San Luis Drain

The San Luis Drain running along the eastern boundary of the District is a concrete-lined canal designed to convey and dispose of subsurface agricultural drainage water from the San Luis service area. The portion of the 82-mile drain that served Westlands has been closed since 1986.

Intertie Project

In October, 2010, federal state and local officials broke ground on a new pipeline and pumping plant that will link the California Aqueduct and the Delta-Mendota Canal. Completion of the Intertie in 2012 will improve overall water supply reliability, increase operational flexibility, and could increase average annual deliveries to the CVP by 35,000 acre-feet.

Westlands Drainage

In many parts of the District, high levels of salts are accumulating in the soil from imported irrigation water. Without proper drainage and disposal, this saline water can impact the root zones of plants, preventing crop growth and reducing yields.

To address this problem, Congress in the statute that authorized the San Luis Unit directed the United States to collect and dispose of drainage water. In 1976, the U.S. Bureau of Reclamation started construction of a drainage collector system to dispose of drainage water into the San Luis Drain and Kesterson Reservoir. However, these drainage facilities were shut down due to unforeseen impacts on wildfowl from the naturally occurring element, selenium, in the drainage water. Westlands has temporarily retired nearly 100,000 acres in order to reduce water demand and improve drainage.